Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A transmission ~~Transmission~~ diversity device, ~~having~~ comprising:

a plurality of antenna elements ~~(2,3)~~[[,]];

a plurality of processing devices respectively connected to one of the antenna elements ~~(2, 3)~~[[,]]; and

phase comparison and adjustment means ~~(10, 19)~~ for comparing phases of signals received at the antenna elements ~~(2, 3)~~ and for adjusting the phases of signals transmitted by the antenna elements ~~(2, 3)~~ according to the result of the comparison ~~(10), characterized in that~~

wherein the transmission diversity device ~~(1)~~ is designed for a multicarrier transmission ~~(4, 5)~~ and individually compares the phases of at least one frequency subcarrier of the multicarrier transmission of each antenna element with the phase of at least one frequency subcarrier of at least one other antenna element ~~(2,3)~~ and ~~adjustes (19)~~ adjusts it subsequently for a transmission.

2. (Currently Amended) The transmission ~~Transmission~~ diversity device according to claim 1, wherein ~~characterized in that~~ the device ~~it~~ is designed for ~~a~~ an OFDM transmission.

3. (Currently Amended) The transmission ~~Transmission~~ diversity device according to claim 1, ~~characterized in that it comprises~~ further comprising:

a subcarrier phase comparison dependent amplitude adjustment function.

4. (Currently Amended) The transmission ~~Transmission~~ diversity device according to claim 1, ~~characterized in that it comprises~~ further comprising

a ~~function of~~ means for averaging ~~(12)~~ the phase differences of a plurality of subcarriers respectively received at one antenna element ~~(2, 3)~~.

5. (Currently Amended) The transmission ~~Transmission~~ diversity device according to claim 1, ~~characterized in that it comprises~~ further comprising

a ~~the function of~~ means for frequency adjusting ~~(11) the~~ phase differences of the subcarriers received respectively at one antenna element ~~(2, 3)~~.

6. (Currently Amended) The transmission ~~Transmission~~ diversity device according to claim 1, ~~characterized in that it comprises~~ further comprising

a means for ~~the function of~~ comparing ~~(10)~~ only predetermined subcarriers of different antenna elements ~~(2, 3)~~.

7. (Currently Amended) A method ~~Method~~ for a wireless transmission diversity transmission by means of a plurality of antenna elements ~~(2, 3)~~ and a plurality of processing devices respectively connected to one of the antenna elements ~~(2, 3)~~, comprising the steps of

comparing ~~phase comparison (10) of~~ phases of a signal received at the antenna elements ~~(2, 3)~~ and adjusting ~~adjustment (19) of the~~ phases of signals to be transmitted by the antenna elements ~~(2, 3) according to~~ depending on the result of the comparison ~~(10)~~, characterized by the steps of :

comparing ~~(10)~~ individually the phase of at least one frequency subcarrier of a multicarrier transmission for each antenna element ~~(2, 3)~~ with the phase of at least one frequency subcarrier of at least one other antenna element; and

adjusting ~~(19)~~ it subsequently for a transmission.

8. (Currently Amended) The method ~~Method~~ according to claim 7, ~~characterized in that~~ wherein the step of comparing ~~(10)~~ is repeated at least twice to calculate an average value used for the step of adjusting ~~(19)~~.

9. (Currently Amended) The method ~~Method~~ according to claim 7, ~~characterized in that~~ wherein the multicarrier transmission is a OFDM transmission.

10. (Currently Amended) The method ~~Method~~ according to claim 7, ~~characterized by~~ further comprising

the step of amplitude adjustment depending on the subcarrier phase comparison.

11. (Currently Amended) The method ~~Method~~ according to claim 7, ~~characterized by~~ further comprising

the step of averaging ~~(12)~~ the phase differences of a plurality of subcarriers respectively received at one antenna element ~~(2, 3)~~.

12. (Currently Amended) The method ~~Method~~ according to claim 7, ~~characterized by~~ further comprising

the step of frequency adjusting ~~(11) the~~ phase differences of the subcarriers received respectively at one antenna element~~s (2, 3)~~.

13. (Currently Amended) The method ~~Method~~ according to claim 7, ~~characterized by~~ further comprising

the step of comparing ~~(10)~~ only predetermined subcarriers of different antenna elements ~~(2, 3)~~.

14. (Currently Amended) The method ~~Method~~ according to claim 7, ~~characterized that~~ wherein the step of comparing (10) comprises

the step of correlating ~~the~~ time domain data.

15. (Currently Amended) The method ~~Method~~ according to claim 7, ~~characterized that~~ wherein in case it is detected that at any of the antenna elements ~~(2, 3)~~ no signal or a signal with an amplitude below a predetermined threshold is received, said antenna element ~~(2, 3)~~ is not used for a transmission.

16. (Currently Amended) The method ~~Method~~ according to claim 7, ~~characterized that it~~ wherein the method is only applied in ~~the~~ a base station of a wireless transmission system.

17. (Currently Amended) A computer ~~Computer~~ program, stored in a tangible storage medium for performing~~, when loaded in a memory of a transmission diversity device~~ diversity

transmission, the program comprising executable instructions that cause ~~a method according to claim 7~~ a computer to:

compare phases of a signal received at the antenna elements and adjust phases of signals to be transmitted by the antenna elements depending on the result of the comparison, characterized by the steps of :

compare individually the phase of at least one frequency subcarrier of a multicarrier transmission for each antenna element with the phase of at least one frequency subcarrier of at least one other antenna element; and

adjust it subsequently for a transmission.